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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,260	07/13/2000	Pessach Seidel	2111-15	9630
23117	7590	06/03/2004	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			CIRIC, LJILJANA V	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/600,260

Applicant(s)

SEIDEL, PESSACH

Examiner

Ljiljana (Lil) V. Ciric

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-9 and 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-13 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendment after final rejection filed on March 29, 2004.
2. The abovementioned amendment is being entered, as previously agreed upon by Examiner Atkinson during the telephonic interview on March 29, 2004.
3. The indicated allowability of base claims 1 and 11 by Examiner Atkinson during the interview on March 29, 2004 is, however, hereby being withdrawn in view of the newly discovered reference(s) to *Gebelius* and additionally upon reconsideration in view of the previously cited (but not applied) foreign reference to *Hille*. Rejections based on the newly cited reference(s) follow.
4. Additionally, in view of the reopening of prosecution due to the abovementioned new prior art rejections, the finality of the previous Office action is hereby withdrawn.
5. Claims 1 through 20 remain in the application, of which all have been amended either directly or indirectly, and of which claims 4 through 9 and 14 through 19 remain withdrawn from consideration as being drawn to non-elected species.

Response to Arguments

6. Applicant's arguments with respect to claims 1 through 3, 10 through 13, and 20 have been considered but are moot in view of the new ground(s) of rejection.

Election/Restrictions

7. As noted in the previous Office action, claims 4 through 9 and 14 through 19 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

Drawings

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8. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the at least one resilient member being flexible *in a direction which is substantially parallel to the plane of the plate member* must be shown or the feature(s) canceled from the claim(s). ***No new matter should be entered.*** Note that the originally filed drawings only appear to show a resilient member which is flexible in a direction which is substantially *in the plane of the plate member 100* (see Figure 2B, for example).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

9. The abstract of the disclosure is objected to because it does not avoid the form and legal phraseology often used in patent claims, such as "comprising". Additionally, the abstract fails to concisely summarize the salient structural features of the claimed invention. Correction is required. See MPEP § 608.01(b).

Claim Objections

10. Claims 1 through 10 are objected to because of the following informalities: "an" should be inserted immediately preceding "elongate support apparatus" [claim 1, line 2] Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 1 through 3, 10 through 13, and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

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art that the inventor(s), at the time the application was filed, had possession of the claimed invention. More particularly, while the originally filed disclosure does meet the written description requirements for claiming that the at least one resilient member is flexible in the plane of the plate member [for example, see page 8, lines 10-11; also, page 9, lines 9-11], the originally filed disclosure fails to meet the statutory written description requirement for reciting the limitation "said at least one resilient member being flexible *in a direction which is substantially parallel to the plane of said plate member*" in each of base claims 1 and 11 because a direction which coincides with or is *in* the plane of the plate member does *not* encompass directions which are substantially *parallel to* the plane of the plate member. A plane is not parallel to itself.

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 1 through 3, 10 through 13, and 20 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1 through 3, 10 through 13, and 20 fail to correspond in scope with that which applicant(s) regard as the invention can be found in the specification as originally filed. In that paper, applicant has stated that the flexible arm or resilient member 120 of Figure 2A "is operative to flex outwardly *in the plane* of the plate member 100, in the direction indicated by arrow 122" [see page 8, lines 10-11] and that the flexible arm or resilient member 120a of Figure 2B has formed therewith a lug 119 whereby "*in-plane* depression of the lug 119, away from support member S, as by use of a user's thumb, widens the constriction defined between pawl 114a formed on flexible member 120a" [see page 9, lines 9-11] and these statements indicate that the invention is different from what is defined in the claim(s) because, according to these statements, the at least one resilient member is flexible *in the plane of the plate member* and *not* in a direction which is substantially parallel to the plane of the plate member as recited in each of base claims 1 and 11. Note that the limitation "a direction *which is substantially parallel to the plane of the plate*

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member" does *not* encompass a direction which is *in the plane of the plate member* since the plane of the plate member cannot be parallel to itself.

15. Claims 1 through 3, 10 through 13, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The intended scope of the limitations "flexible in a direction which is substantially parallel to the plane of said plate member" in each of base claims 1 and 11 is not clear as written due to the lack of a corresponding written description/disclosure as noted in greater detail above in the application as originally filed, thus rendering claims 1 and 11 and all claims depending therefrom indefinite with regard to the scope of protection sought thereby.

Each of claims 2 and 12 first recites the support apparatus as having "a known width", followed by a recitation of the recess being "configured to at least partially accommodate *the cross-section* of said support apparatus" but no further mention or reference to the aforementioned "known width". Is or is not the recited "cross section" of the support apparatus one and the same as the "known width"? If so, then the same terminology should be used throughout the claims for the same dimension to avoid confusion. If not, then it is not clear to which dimension the recited "cross section" refers to, further rendering the intended scope of these claims and all claims depending therefrom indefinite.

With regard to claim 10 as written, it is not clear whether the recitation of "a single support engagement portion" in line 4 of the claim refers to the same element as the "at least one support engagement portion" recited in line 5 of claim 1 from which claim 10 depends. The same limitation appears in line 4 of claim 20 and similarly renders the intended scope of the claim unclear as written.

The term "similar" in line 2 of claim 11 is a relative term which renders the claim indefinite. The term "similar" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of

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the invention. Thus, as used to compare the stack of members supported in the support structure, this term renders the same indeterminate and the claim indefinite.

Claim 2 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the one(s) between the at least one lateral protrusion partially extending across the recess and any one of the support engagement portion, the support apparatus, and any one of the flat plate members.

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for additional problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. As best can be understood in view of the indefiniteness of the claims, claims 1, 10, 11, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Gebelius*.

Gebelius discloses a flat plate heat exchanger essentially as claimed, including, for example: a support structure having an elongate support apparatus readable on pipe 13; a plurality of generally flat plates 10 (at least upon assembly, see Figure 9) formed of a heat conductive and resilient material [i.e., “thin, springy sheet metal”; see column 2, lines 4-5] and arranged for attachment to the support apparatus/structure or pipe 13 so as to be supported thereby [i.e., see Figure 1]; each plate member 10

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including at least one support engagement portion surrounding collar 12 that snap couples and decouples the plate member 10 and the elongate support apparatus or pipe 13, the support engagement portion including at least one resilient member or collar 13 formed integrally with the plate member 10 [see column 2, lines 17-48]; and, a pair of spaced apart generally parallel elongate support members or side members 15, 15', with each plate member 10 having a pair of generally parallel edge portions each having formed therein a single support engagement portion 14, 14' for coupling with a selected one of the support members 15, 15'. The at least one resilient member or collar 13 is disclosed as being flexible both in the plane of the plate member 10 and in planes parallel thereto (i.e., in parallel planes intersected by the axial width of the collar 13).

The reference thus reads on the claims.

18. Alternately for claims 1, 10, 11, and 20 and as best can be understood in view of the indefiniteness of the claims, claims 1 through 3, 10 through 13, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by *Hille (DD 46,856-- previously of record)*.

Hille discloses a flat plate heat exchanger essentially as claimed, including, for example: a support structure having an elongate support apparatus including a pair of spaced apart generally parallel support members 1 and 6; a plurality of generally flat plate members 3 arranged for attachment to the support apparatus or support members 1 and 6; each of the flat plate members 3 including at least one support engagement portion in turn including at least one resilient member or lateral protrusion or "nose" 4, 5, and 7; and, a recess configured to at least partially accommodate the cross section of the support apparatus or support members 1 and 6 as shown in the figure. The flat plate members 3 of the heat exchanger are inherently made of a material which is heat conductive at least to some degree.

The reference thus reads on the claims.

Conclusion

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19. The following additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Usher, Chen et al.*, and *Bohn* each discloses heat exchangers with assembly and disassembly features of interest.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925. While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel, can be reached on (703) 308-1272.

The NEW central official fax phone number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

May 28, 2004


LJILJANA V. CIRIC
PRIMARY EXAMINER
ART UNIT 3753